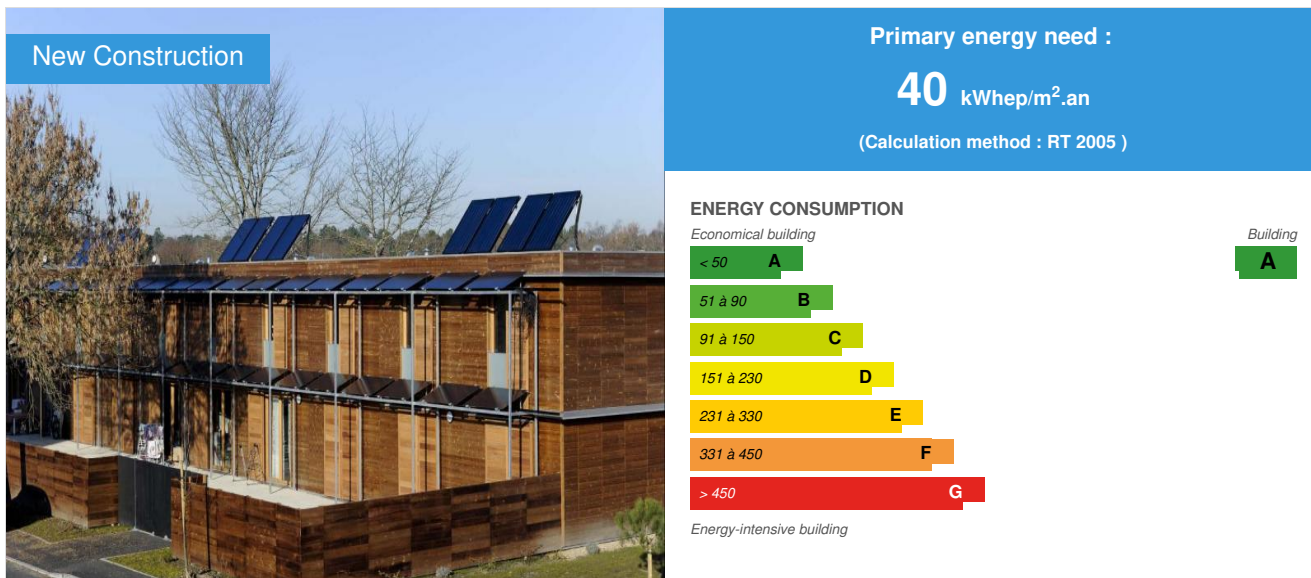


Résidence Macédo in Pessac

by stéphane MOREAU / 2012-09-24 15:13:58 / France / 15695 / FR



General information

Residence Macedo, 10 houses BBC, is at the heart of a 1970 property and consists of apartment buildings of 4 floors. This achievement is distinguished by its clean lines, its facades maritime pine and high performance architecture.

It is indeed the first realization Low consumption Domofrance with this level of performance envelope to meet the requirements of direct electrical BBC label. Low heating needs and summer comfort is now a reality after two years of occupation. Another success of this project is an all-purpose average energy bill of less than 600 € / year for a T4.

Sustainable development approach of the project owner

This project is part of an overall environmental certified approach (certification Habitat and Environment) with a desire for innovation both on the envelope performance and the choice of equipment limiting costs for the tenant. This proposed low-energy houses is also in the context of the call for proposals ALIENOR and responds to high performance levels regarding summer thermal comfort and visual comfort.

Architectural description

Housing enjoy bioclimatic design with a south/ North facing and are through (living-room oriented to the south). Sunscreens: a sliding shutters with slats of wood and photovoltaic sunshades allow management of solar gain .The roof is constituted of a 20 cm thick concrete slab can leading to a high thermal inertia. The facades are made of wood and joinery.

Stakeholders

Stakeholders

Function : Contractor

DOMOFRANCE

<http://www.domofrance.fr>

Function : Construction Manager

CABINET D'ARCHITECTES LATOUR-SALIER

<http://www.latour-salier.com>

Function : Thermal consultancy agency

OTCE AQUITAINE

<http://www.otce.fr/>

Function : Certification company

CERQUAL

<http://www.qualite-logement.org/accueil.html>

Type of market

Realization

Energy

Energy consumption

CEEB : 0.0001

Primary energy need : 40,00 kWhep/m².an

Primary energy need for standard building : 178,00 kWhep/m².an

Calculation method : RT 2005

Breakdown for energy consumption : While heating generally represents the major energy consumer, it only represents a quarter here, with a monthly bill for electric heating estimated between 15 and 18 €. Thanks to a reinforced insulation by the outside facades, roofs and foundations, but also to a south orientation and large bay windows for living rooms.

Real final energy consumption

Final Energy : 1 734,00 kWh_{ep}/m².an

Envelope performance

Indicator : I4

Air Tightness Value : 0,60

Renewables & systems

Systems

Heating system :

- Electric radiator

Hot water system :

- Solar Thermal

Cooling system :

- No cooling system

Ventilation system :

- Double flow heat exchanger

Renewable systems :

- Solar photovoltaic
- Solar Thermal

Smart Building

BMS :

The accommodations are instrumented to monitor energy consumption and fluids

Environment

Urban environment

MACEDO residence is at the heart of a property built in the year 1970 consisting in collective houses in R+4 and individual houses.

Products

Product

Photovoltaic panels

Product category :

The photovoltaic panels placed along the double galvanized frame gallery can recover the energy and act as sunshades.

Mini shed

DOMO HELIOS

contact@domo-helios.com

<http://www.domo-helios.com/>

Product category :

e MiniShed est un produit photovoltaïque 'd'autoconsommation'. C'est un produit exclusif et breveté de DOMO HELIOS qui s'inscrit dans la logique suivante : ne plus produire de l'électricité photovoltaïque pour la revendre, mais pour ne plus avoir à l'acheter. A partir de 4490 € T.T.C : MiniShed 1,5 kW , 6 modules 250 W Solarworld, 1 onduleur SMA, boîtier de protection DC et AC. - See more at: <http://www.domo-helios.com/#sthash.SgHNKLbH.dpuf>

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Carbon

GHG emissions

GHG in use : 0,92 KgCO₂/m²/an

Methodology used :

GHG Emission positions Heating, cooling and DHW





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